Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A process for ~~the preparation of a solution comprising a substantially pure isoform of AT-III, comprising~~ separating ~~the~~ an ~~isoform~~ AT-IIIα isoform from an AT-IIIβ ~~on a calcium hydroxyphosphate based adsorbent~~ isoform, comprising the steps of:

(i) providing a solution comprising AT-IIIα and AT-IIIβ;

(ii) contacting the solution with a calcium hydroxyphosphate-based adsorbent; and

(iii) eluting an isoform of AT-III.

2. (cancelled).

3. (currently amended) The process according to claim 1 wherein the ~~separation of AT-IIIα and AT-IIIβ is~~ contacting and eluting are carried out by column chromatography.

4. (currently amended) The process according to claim 1 ~~for the preparation of substantially pure~~ wherein the eluted isoform is AT-IIIα.

5. (original) The process according to claim 4 wherein AT-IIIα is eluted from the calcium hydroxyphosphate-based adsorbent with a buffer having a phosphate concentration of from about 50 mM to about 150 mM.

6. (currently amended) The process according to claim 1 ~~for the preparation of substantially pure~~ wherein the eluted isoform is AT-IIIβ.

7. (original) The process according to claim 6 wherein AT-IIIβ is eluted from the calcium hydroxyphosphate-based adsorbent with a buffer having a phosphate concentration of from about 150 mM to about 400 mM.

8. (currently amended) The process according to claim 1 wherein the ~~said~~ calcium hydroxyphosphate-based adsorbent is hydroxyapatite.

9. (currently amended) The process according to claim 1 wherein ~~separation of AT-IIIα and AT-IIIβ is~~ the contacting and eluting are carried out at a pH of from about 6.0 to about 7.5.

10. (currently amended) The process according to claim [[2]] 1, wherein the ~~said~~ solution ~~mainly~~ comprising ~~AT-III~~ AT-IIIα and AT-IIIβ is prepared by a process comprising the steps of:

(i) ~~preparing~~ providing a Cohn Fraction I supernatant from human plasma;

(ii) contacting the ~~said~~ Cohn Fraction I supernatant with an affinity gel capable of binding AT-III; and

(iii) eluting ~~and collecting the~~ a protein fraction binding to the ~~said~~ affinity ~~matrix~~ gel.

11. (currently amended) The process according to claim 10 wherein the ~~said~~ affinity gel comprises heparin as ~~the~~ an affinity ligand.

12. (currently amended) The process according to claim 1 wherein the ~~obtained isoform of AT-III is substantially free~~ eluted isoform of AT-III is separated from histidine-rich glycoprotein (HRGP).

13. (cancelled).